REMARKS

No claims have been added, cancelled or amended as part of this Reply. Claims 76-80 are pending.

Prior Art Rejections

In responding to the Examiner's prior art rejections, Assignee here only justifies the patentability of the independent claims (i.e., claims 76, 80). As the Examiner will appreciate, should these independent claims be patentable over the prior art, dependent claims would also necessarily be patentable. Accordingly, Assignee does not separately discuss the patentability of the dependent claims, although Assignee reserves the right to do so. To aid the Examiner, certain portions of the Examiners rejection have been copied into this Reply. Arguments as to those rejections then follow.

Section 103(a) Rejections

The Examiner has rejected original independent claims 76 and 80 along with original dependent claims 77-79 as allegedly being obvious under 35 U.S.C. 103(a) over U.S. Patent No. 6,115,054 to Giles ("Giles") in view of U.S. Patent Publication 2003/0009758 to Glanville et al. ("Glanville").

Summary of Giles

Giles is directed to "[a]n emulation system [that] emulates operation of a graphics processor in a target computer system that is executing a computer program … At each frame end the emulation module evaluates the ability of the general purpose computer to generate video frames fully synchronized with the target computer system. When the evaluation is positive, the emulation module fully executes all the commands … when the evaluation is negative, the emulation module executes a first subset of the commands." Giles at Abstract. Stated another way, Giles discloses "a system and method for adaptively skipping video frames when the emulation system determines that emulation time is less than the real time of the system." Giles at Col. 1 lns. 10-13.

Summary of Glanville

Glanville is directed to a system for improving performance during graphics processing that involves application-programmable vertex processing that includes a CPU and a graphics application specific integrated circuit (ASIC). Software is included to direct the ASIC to perform the graphics processing. The software can divide graphics code into a first and second portion. The second portion of the graphics processing includes application-programmable vertex processing unavailable by the graphics ASIC. The first portion of the graphics processing is executed on the ASIC and the second portion is executed on the CPU (because the ASIC has limitations or deficiencies). *See* Glanville at Abstract, ¶¶ 83-84. In summary, Glanville discloses modifying graphics code, if possible, to execute on an ASIC. If it is not possible to modify the code, Glanville discloses splitting the graphics code so that portions of the code that cannot be executed on the ASIC are executed on the CPU.

Discussion

The Examiner has rejected independent claim 76 as follows:

> 3. Regarding claim 76, Giles teaches: A method of applying two effects to an image, the method comprising the steps of - using a first microprocessor to apply a first effect to a first frame of said image, said first microprocessor applying said first effect while emulating a second microprocessor (fig. 11A, 384 see also col. 16 lines 23-35) (The generation of frames is equivalent to applying a first effect).

Office Action dated 12 May 2009 at p. 2.

The Examiner asserts that "generation of frames is equivalent to applying a first effect." Office Action dated 12 May 2009 at p. 2. However, this is clearly incorrect because the plain language of the claim states "to apply a first effect ***to*** a first frame of said image." Because the effect is being applied to a frame, the frame must have already been generated. In the context of Giles the "generation of frames" has to do with a timing function of the emulator relative to the target computer system. As stated

above, Giles monitors the time taken by the emulator to generate frames to determine if the emulator must skip frames in order to stay in sync. Therefore, the generation of frames disclosed in Giles is in no way equivalent to applying effects to frames.

Furthermore, the Examiner admits:

> 4. Giles doesn't teach: -using said second microprocessor to apply a second effect to said first-effected frame, applying said first effect to a next frame by said first microprocessor approximately during the time that said second microprocessor is applying said second effect to said first-effected frame.

Office Action dated 12 May 2009 at p. 2.

The Examiner relies on Glanville to supply this missing limitation by asserting:

> 5. The analogous prior art Glanville teaches: -using said second microprocessor to apply a second effect to said first-effected frame, applying said first effect to a next frame by said first microprocessor approximately during the time that said second microprocessor is applying said second effect to said first-effected frame (fig. 6, 606 see also [0084]) (The portion of graphics processing performed on ASIC is equivalent to 2nd processor applying effect to first frame) for the benefit of providing a set of API features that facilitate combining application-programmable vertex processing with existing 3D applications originally authored to use conventional vertex processing, and providing for API features that reduce the effort required to augment an existing 3D application to use application-programmable vertex processing.

Office Action dated 12 May 2009 at pp. 2-3.

As stated above, Glanville is simply directed to ***splitting up the graphics code*** between an ASIC and a CPU. The code is not split with any recognition of frames. Rather the code is split via software analysis such that the CPU performs the operations that cannot be performed by the ASIC. This is made clear when Glanville explains "[s]uch second portion of the graphics processing includes application–programmable vertex processing unavailable by the graphics ASIC" (Glanville at ¶ 15) and "[s]uch second portion of the graphics processing is adapted to overcome the deficiency [of the ASIC] by utilizing the CPU" (Glanville at ¶ 84). *See also,* Glanville at ¶¶ 81-82 (method for overcoming deficiencies in the system).

Independent claim 26 recites, *inter alia*, "applying said first effect to a next frame by said first microprocessor ***approximately during the time*** that said second

microprocessor is applying said second effect to said first-effected frame." Glanville is completely silent as to at least both of these elements. Glanville does not disclose any kind of temporal division of work between two processors because Glanville only discloses splitting code based on capabilities of processors ***not timing***. Furthermore, Glanville is completely and utterly silent as to applying effects to frames by one processor and then another processor. For at least these reasons, claim 76 cannot be rendered obvious by any combination of Giles and Glanville. Therefore, the Examiner has failed to present a legitimate *prima facie* case of obviousness as required by law and Patent Office procedure. Assignee respectfully requests the Examiner withdraw this rejection and issue a Notice of Allowance for independent claim 76.

Claims 77-79 depend from independent claim 76 and independent claim 80 is a computer-readable medium performing the method of independent claim 76. Thus, these claims too are patentable over the cited art for at least the same reasons as independent claim 76. Assignee respectfully requests the Examiner withdraw this rejection and issue a Notice of Allowance for all claims.

Conclusion

This paper is intended to be a complete response to the above-identified Office Action. Assignee believes no fees are due. However if it is found that additional fees are due the Commissioner is authorized to deduct the necessary charges from Deposit Account: 501922/119-0036US.

Reconsideration of pending claims 76-80 in light of the above remarks is respectfully requested. If, after considering this reply, the Examiner believes that a telephone conference would be beneficial towards advancing this case to allowance, the Examiner is strongly encouraged to contact the undersigned attorney at the number listed.

Respectfully submitted,

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